GEOLOGY AND PALÆONTOLOGY.

THE CAVE BEAR OF CALIFORNIA.—In exploring a cavern in the Carboniferous limestone of Shasta county, Cal., James D. Richardson discovered the skull of a bear beneath several inches of cave earth and stalagmite. The specimen is in a good state of preservation, and demonstrates that the cave bear of that region was a species distinct alike from the cave bear of the East (*Ursus pristinus*), and from any of the existing species. In dimensions the skull equals that of the grizzly bear, but it is very differently proportioned. The muzzle is much shorter, and is wide, and descends obliquely downwards from the very convex frontal region. It wants the large postorbital processes of the grizzly, but has the tuberosities of the polar bear (*U. maritimus*), which it also resembles in the convexity of the front. Sagittal crest well developed. Three (one median and posterior) incisive foramina: three external infraorbital foramina. The teeth are large, and the series presents the peculiarity of being without diastema. The crowns of the premolars are not preserved, but if there were not three premolars, the second tooth has two well developed roots. First true molar with but two external and one internal tubercle. The absence of diastema renders it necessary to separate this bear from the true *Ursi*, and I propose to regard it, provisionally, as a species of *Arctotherium* Gerv. The canine teeth are large and compressed at the base. Length of cranium along base from below apex of union to premaxillary border, m. 0.387; length to posterior nares, .202; elevation of forehead vertically above the posterior extremity of the last molar, .141; width between inner border of posterior molars, .076. The species may be called *Arctotherium sinum*.—*E. D. Cope.*

GEOGRAPHY AND TRAVELS.[1]

THE SWEDISH ARCTIC EXPEDITION.—An account of the voyage of the *Vega* up to August 27, 1878, at the mouth of the Lena river was given in our number for February last. After separating from the *Lena* they steered north-east toward the most southern of the New Siberian islands. These islands are remarkable for the numerous remains of the mammoth and a great quantity of coeval animal forms, which are found on them more abundantly than in the Tundra of the continent. A really thorough scientific examination of these islands has yet to be made.

Continuing on their course in the ice-free channel along the coast they reached the Baranov islands on the 3d of September. From here they passed through dense masses of floating ice until the 28th, when they were finally beset near the East cape, at Koljutschin bay 67° 6′ N. and 173° 15′ W., where they passed the winter. From letters from Prof. Nordenskiöld and from the

[1] Edited by ELLIS H. YARNALL, Philadelphia.